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ABSTRACT

In recent years, over 1,000 middle schools of varying grade level organization have been established in 49 States. From an intensive study of materials published between 1961 and 1968 (listed in an appended bibliography), a basic rationale has been developed for the momentum of this trend. The new concept of the middle school (grades 6-8) is viewed as effectively meeting the particular needs of today's youth, who mature physically, emotionally, intellectually, and socially much earlier than did their counterparts at the turn of the century when the junior high school (grades 7-9) was introduced. An ESEA Title III planning project led to the reccmmendation that the Albuquerque Public Schools move to a 5-3-4 grade level organization, incorporating a middle school for grades 6-8. (JK)

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THE FUTURE SCHOOLS STUDY PROJECT

Albuquerque Public Schools

Albuquerque, New Mexico

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Grade Level Organization In a School System

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Future Schools Study Project
Albuquerque Public Schools
Albuquerque, New Mexico

FOREWORD

In March 1967 a special ESEA, Title III planning project began in Albuquerque, New Mexico to "study the type of schools needed in the last quarter of the twentieth century." One area of much study has been grade level organization.

After intensive study by the staff of the planning project, it was a unanimous consensus that a grade level reorganization should be recommended. Accordingly, on March 26, 1969, it was recommended to the Board of Education that the Albuquerque Public Schools should move from its present 6-3-3 organization to one which would define the elementary level as grades 1 to 5, a mid-school, grades 6 to 8, and a four year high school, grades 9 to 12.

The following writing represents an effort by the Project's research assistant to compile in a logical and readable form much of the information on which the project staff based its recommendation. Mrs. Read has done an admirable job in putting this material together. To my knowledge it is the best discussion of grade level organization.

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GRADE LEVEL ORGANIZATION IN A SCHOOL SYSTEM

I

A basic grade level reorganization is starting to take place in the public school systems in the United States. While the 6-3-3 pattern is still by far the dominant grade organization, changes are being made in favor of the 5-3-4, 4-4-4 and other patterns. This reorganization affects all levels of schooling but primarily the middle level, with a change in title for this middle level generally accompanying the organizational change. Some of the schools making this change continue to use the term "junior high school," but most of the schools use the term "middle school."

The trend toward establishment of the middle school, a recent movement, is substantiated by several surveys:

1. A U. S. Office of Education survey in 1959-60 showed 12% of the junior high schools in the United States and 15% of the senior high schools were planning organizational changes. [3:8]
2. A study by Pearl Brod in 1966 showed that 49 states had at least one middle school. Out of 40% of the school systems surveyed, 10% had or were moving toward a 5-3-4 or 4-4-4 organization. [3:9]
3. In 1965-66, William A. Cuff, with information from 44 states, found that 446 school districts in 29 states were operating 499 middle schools. [9:83]
4. Paul J. Zdanowicz, in 1967, made a survey of junior high schools in northeastern United States. He found that 16% of them included the 6th or 5th and 6th grades. [3:8]
5. William Alexander, through a survey in 1967-68, discovered that 1,101 middle schools were in existence. [1:114]

While there are some discrepancies in these surveys, probably due to different definitions of "middle school" being used, a trend toward this type of reorganization is apparent. Initially, smaller school districts changed to the middle school organizational pattern, but more recent evidence indicates that larger school systems as well are reorganizing to establish middle schools. Examples of some of the cities and school districts which have already implemented the middle school idea or are working toward it include the following: New York City (5-8); New Haven, Connecticut (5-8); Pittsburgh, Pennsylvania (6-8); Bedford Middle School, New York (6-8); Barrington Middle School, Illinois (6-8); Amory Middle School, Mississippi (5-8); Mattline Junior High School, Long Island, New York (6-9); McIntosh Middle School, Florida (5-9); and Pleasant Hills Middle School, Pennsylvania (5-8). [18:passim] Some states with the greatest number of middle schools in operation include Texas (252), Illinois (142),

California (131), Michigan (97), New York (92), and New Jersey (91). [1:115]

The question, of course, is: why have an increasing number of school districts abandoned the traditional junior high school in favor of the new (and as yet, unproven) middle school? Basically, there seem to be two reasons for this trend: 1. dissatisfaction with the junior high school as it exists in reality today (although not necessarily dissatisfaction with the *intentions* of the junior high school); and 2. hope (backed by available evidence that a different group of students should be in the middle level school and that a different program should be developed) that the middle school formation will help solve some of the problems that exist with the 6-3-3 organization and, most importantly, provide an improved educational experience for the middle-aged child.

Dissatisfaction with the traditional junior high school is rather easily explained: some of the purposes in the early 1900's for the establishment of the junior high school are no longer relevant for the 1960's and 1970's; other purposes are quite relevant even today—it is simply that the schools have not achieved the purposes for which they were established.

There is nothing sacred about the junior high school and the 6-3-3 organization. They came into existence because of the culmination of a variety of events at about the same time in history:

1. The desire of college administrators to have secondary education start earlier so people would enter college better prepared academically (in the common 8-4 organization, students started secondary education work in the 9th grade);
2. A concern to provide a better educational program for two particular groups of youth, the drop-outs and "left-backs;"
3. A new concern for the preadolescent, initiated by psychologists such as G. Stanley Hall, James M. Cattell, and E. L. Thorndike, who stressed the idea that individual differences should be recognized and treated during the prime period of radical changes in a young person's development;
4. A realization that with a changing society (urbanization, greater need for job training, needs of immigrants, and the breakdown of the self-contained family unit), the educational institutions needed to handle some functions previously provided by the family.

Supposedly the junior high school was to provide secondary education at an earlier age, keep students in school longer, bridge the gap between the self-contained elementary classroom and the highly specialized program of the senior high school, provide an exploratory experience for students to sample various subject matters before making a commitment to a

specific program in the senior high school, and provide guidance services as an aid in academic, vocational, and personal matters.

Even today there is nothing wrong with these purposes and intentions. It is simply that junior high schools, generally, have not been successful in accomplishing the purposes. Instead, the program in the junior high school has been developed so that the following widespread complaints are made against it:

1. The junior high school attempts to take a program developed for adolescents (senior high school students) and force it upon a younger group of people. Specific parts of the senior high school program not appropriate for the younger students include varsity sports teams; accoutrements such as marching bands, cheerleaders, and pep rallies; certain organizations and clubs; proms and formal graduation; and a totally departmentalized curriculum.
2. Generally, few electives for exploratory programs are provided.
3. Teachers are not trained to work with these children.
4. There is little continuity among the three levels of schools.
5. The 9th grade does not fit in the junior high school for reasons pertaining to physical, social and mental development, Carnegie unit requirements by high schools and colleges, and special course demands.

It is apparent that dissatisfaction with the traditional junior high school program is reason alone for many educators to turn toward a different kind of program for the middle-aged youngster—the middle school. The second reason for this trend toward establishment of the middle school, however, is a more positive one—the hope and belief that the middle school is the appropriate vehicle by which a meaningful educational program can be developed for the often neglected middle-aged child in the vitally important preadolescent period of his life.

It should be pointed out, however, that numerous other reasons are also influential in the development of middle schools: building and enrollment problems; the belief that needed innovations are easier to implement in a new organization; the need for some specialization to begin in earlier grades; the desire to satisfy demands of the 9th graders for depth and breadth of courses and of the 6th graders for some special courses that cannot be offered in the elementary school; the desire to slow the growing-up process of today's children; and the need of many school districts to seek yet another way to solve partially the desegregation-integration situation.

It seems reasonable to assume that if the idea of the middle school had not been in existence in the late 1950's and early 1960's, many school districts would be attempting some other kind of change in an effort to solve

existing problems. But the fact is that the middle school concept *is* in existence, and there are strong, substantial reasons for its so being.

Theoretically, the middle school is built upon the concept of transescence, "the period in human development which begins in late childhood, prior to the onset of puberty and which extends through the early stages of adolescence. It is for the transescents that the middle school is designed." [10:vii]

Put in terms of administration and program, the middle school is a school

> "which combines into one organization and facility certain school years (usually 5-8 or 6-8) which have in the past been separated into elementary and secondary schools under such plans as the 6-3-3, 6-2-4, or 6-6," and with a program "planned for a range of older children, preadolescents, and early adolescents that builds upon the elementary school program for earlier childhood and in turn is built upon by the high school's program for adolescents." [1:114 & 3:5]

The key, of course, to the middle school concept is the child whom this particular level of schooling serves—the transescent. The grade levels that make up the middle school are generally 6-8 or 5-8, the reason being that the period of transescence in children today comes earlier in terms of chronological age than at the beginning of the twentieth century. Scientific research data is available which shows that young people of today are developing physically nine to twelve months earlier than boys and girls their same chronological age did 60 to 70 years ago. Along with the earlier physical development, of course, goes an earlier change in other essential components: emotional, intellectual, and social development. All of these factors are discussed in the following section.

II

The idea that children today begin the maturing process earlier than children their same age at the end of the nineteenth century is substantiated by a number of research studies. Data from these studies show that the puberty cycle begins earlier in children, and because of the nature of the actual physiological changes as well as the related demands of the cultural environment, a correspondingly earlier maturity comes in the social, emotional, and intellectual components.

Consistently agreed upon by various writers are the following reasons for this early maturation:

1. A diet richer nutritionally with vitamins and calcium and better maternal health care which result in earlier physiological development;

2. An increasingly complex society which forces children to view the world and their personal relationship to it at an earlier age;
3. A new kind of mass media which exposes children to a variety of experiences earlier than their parents were exposed, bringing a greater and earlier intellectual sophistication; and
4. A less cohesive family unit for effective child rearing which forces children to seek needed security in an earlier opposite-sex relationship.

The critical period of the maturation process is the transition period between childhood and adolescence—transescence. This period is marked by the following characteristics: [3:25-26]

1. Differences in physical maturity levels within each sex and between sexes, as well as changes in physiological functioning, which are greater than those occurring at any other time during the growth cycle;
2. The gradual emergence of a more adult-like mode of intellectual functioning;
3. Psychological and social reorientation more traumatic than that of any similar period of growth.

The research data available on these characteristics, particularly the first two, is significant and extremely pertinent to consideration of a middle school organization.

Physical Growth

Various studies from 1939 to 1959 show a consistent pattern in change of growth rate "with acceleration of growth before pubescence and deceleration of growth following pubescence." [3:27]

These studies include the Adolescent Growth Study of the University of California at Berkeley, the Harvard Growth Study (by F. K. Shuttleworth), and other longitudinal studies by Shuttleworth and Bayer and Bayley. These studies corroborated each other in finding that the duration of this period of growth lasted from three and one-half to five years. This is the time in a person's life in which "the greatest amount of physical, psychological, and social change will occur in each individual, along with the natural stress that accompanies these changes." [3:27]

While this growth process occurs in all children, the chronological age at which it occurs differs. Boys may enter this period of transition anywhere from 10 years of age to 13½. Girls enter this period of transition anywhere from 8 years of age to 11½. Thus the earlier girl maturers are in the 3rd grade and the boys in the 4th. Pubescence may be reached by these early maturing girls in the 5th grade and boys in the 6th. Late maturing girls end the transition period in the 10th grade and boys in the 11th grade.

Donald Eichhorn writes of a study done by Herbert R. Stolz and Lois Meek Stolz which shows that girls enter the transescent period between ages 8 and 12 and boys enter the period between ages 9 and 13. This study shows that the period of transescence lasts from 4½ to 7 years. [10:8]

Eichhorn also mentions a study by Gould and Gould in the Journal of the American Medical Association which deals with sexual development of young people. This study, along with a number of others, show that the chronological age for girls at the start of menarche is earlier now; many girls begin their sexual development at age 9. The onset of puberty for boys occurs often at age 10. [10:10-13]

Numerous other studies indicate earlier physical development in other ways: [10:10-11]

1. Children are taller (heighth has increased 6-7% over children of a half century ago);
2. Children are heavier (12-15%);
3. Children experience earlier eruption of teeth;
4. Children show myopia at an earlier age.

Because of the nature of the various factors which have brought about an earlier maturation process, it appears that the accelerated pattern of physical development will continue. As stated by Donald Eichhorn,

> There appears to be a very significant relationship between socio-economic conditions and early growth. In the United States today, socio-economic conditions seem favorable for a continuation of the acceleration pattern. [10:16]

It is understood, of course, that while the same growth pattern exists for all transescents, there is a differentiation between children concerning the chronological age at which the transescent period starts and the length of its duration. Understandably, this results in problems, with definite implications for educators. These problems are most likely to exist for both early and late maturers, whether boys or girls, and whether they are knowledgeable or not about the changes taking place within their bodies.

Research seems to indicate, however, that

> It is the early maturer who is less likely to have social-emotional problems in our society. Conversely, the probability is high that the late maturer will be emotionally disadvantaged in an educational setting—particularly if that setting compounds tensions. [10:20]

For the transescent the use of the body is as important as the appearance of the body. Status for males is gained through physical efficiency, and

status for girls is gained through attractive appearance. Late maturing males are faced with problems in connection with physical efficiency. It is essential that any educational program take into account the growth needs of a child in the learning process.

> . . . school programs should be founded on goals which will enable the physically emerging youth to better understand growth changes in order to keep a proper perspective; to create goals which will enable all boys, not just the physically gifted, to attain physical success; and to develop goals which will aid girls in understanding the reasons for the presence or absence of maturation changes. [10:23]

A significant conclusion reached from the evidence of these research studies is that "the grades during which virtually all children are at some stage in the period of transition are grades 5 [or 6] through 8." [3:28] This indicates that children in the 5th, or certainly the 6th grades, in terms of physiological development, do not fit in the elementary school. A middle school seems to be the logical place for these children.

In addition to the information on physiological development, there is other evidence available which gives an additional reason for changing the 6-3-3 grade-level organization, evidence on the intellectual development of youth.

Intellectual Development

In attempting to understand the intellectual development of children, the educator's greatest debt probably is to Jean Piaget, the Swiss psychologist who has intensively studied the development of the intellect over a 40-year period of time. Piaget's theory is that intelligence is not fixed at birth, but rather "develops as the human organism carries on transactions upon objects or events in the environments." [19:30]

Intellectual development, according to Piaget, can be divided into three stages: preoperational, concrete operations, and formal thought.

During the preoperational stage, from birth to age 6 or 7, the child gradually acquires an awareness of the external world. This awareness is acquired through interaction with his environment on a trial and error basis. The child begins with unorganized and fumbling attempts to come to grips with symbols but tends to operate solely in terms of his perceptual field. One significant characteristic of this preoperational stage is the lack of mental reversibility—the child cannot reverse a procedure if an object changes shape. [10:25]

The concrete operations stage begins at age 6 or 7 and continues to age 11 or 12. During this stage the child extends his thought from what is viewed as reality to that which is potential reality; he transforms what is

perceived by mentally manipulating the data. This mental activity is directed toward concrete events and objects; however, the child can utilize ideas without current reference to concrete information.

The formal thought stage of intellectual development starts at the age of 11 or 12. At this time the child begins to think in abstract terms, to think logically. He can state propositions; he can see a problem, consider all possible true relations, attempt to see which are actually true, and can hypothesize about what may be true. The most significant characteristic of this stage is that a child has the "ability to think in terms of the potential." [10:35]

On the evidence of Piaget's studies that children have the ability to deal with abstractions and engage in formal thought at around 11 years of age, it seems logical to make a break in the educational organization at this age —age 11, or the 6th grade. Children at this age are able to approach problems in a different manner than other elementary children and should be given that opportunity. (Of course, this evidence of intellectual development should also be taken into account in the instructional planning for the 6th graders.)

Some persons who favor the 5-8 middle school organization also cite Piaget's study of intellectual development but push his stage of formal thought which begins at age 11 or 12 down to age 10 or 11. It may be true that if the process of earlier physical maturation in the Western culture continues, at some time in the near future, the stage of formal thought will be accepted as beginning at age 10. Thus it seems reasonable, if one were considering the intellectual development factor alone, to keep in mind the possibility that 10 year olds might need to be included in this group of middle school children.

Personality Development

There are several elements which make up the "personality" development process that takes place in the transescence period, but the major ones include the development of self-concept, peer influence, sex role identification, and turbulent emotions, all of which add up to a most difficult growing period for the child.

The development of the self-concept is expanded during this period of transition when the child is attempting to shift from parental dependency to a world of adults and his peer group. With this shift from parental dependency the peer group has the stronger influence over the child. Parents and teachers are often considered and treated as outsiders.

During this same period of time the child is tackling one of the other major tasks of preadolescence, that of sex role identification—learning what it means to be male and female. Alexander points up the fact that Piaget suggests (in his book *Growth of Logical Thinking From Childhood to*

Adolescence, with Barbel Inhelder) that sex role identification accounts in part for the transition from the concrete operations period to the formal operations period of intellectual development. "Cultural pressure and the eagerness of the child to assume adult roles (with adult modes of thought) are facilitating factors which contribute to the transition." [3:39]

As a result of the physical change as well as the ramifications for the mental, social, and emotional elements of a total being, it is no wonder that this is a period of turbulent emotions, for "during no other period of human growth and development are youngsters required to adjust themselves to so many changes simultaneously." [3:40]

While studies pertaining to the age or grade level at which these personality components of the transescence period are taking place were not found, it is acknowledged that they are happening at the same time as the intellectual and physiological changes, which would mean at an earlier age now than at the turn of the century.

One particularly important study, referred to by a number of persons writing on the middle school, gives further evidence for the inclusion of younger students in the middle school unit and speaks also to the question about what to do with the 9th grade. A doctoral dissertation in 1963, by Wilfred P. Dacus, "A Study of the Grade Organizational Structure of the Junior High School as Measured by Social Maturity, Emotional Maturity, Physical Maturity, and Opposite-Sex Choices," of pupils in grades 5 through 10 showed that the differences in all these categories among the pupils were *least* between pupils in grades 6 and 7 and pupils in grades 9 and 10. [3:43 and 2:218]

The foregoing information makes it obvious that the traditional 6-3-3 school organization does not reflect existing knowledge about the period of transescence. When this knowledge is taken into account, there is little justification for the organizational division between the 6th and 7th graders.

If a major concern of educators is that "the foremost consideration in planning for instruction is to develop a school pattern that will best serve students who have similar intellectual, social, physical and emotional needs," [16:329] then there is strong reason, from both the intellectual and physiological standpoints, to include the 6th grade in the middle level school. There is also the evidence from the physiological standpoint that perhaps even 5th graders should be included in the middle school.

> Concluding that children now mature more rapidly than those who lived earlier in the century, that social interest patterns develop earlier, that conventionally organized elementary and secondary schools do not take these changes sufficiently into account, [Eichhorn] postulates that a new structure—a non-graded middle school—offers an opportunity to reorganize in such a manner as to offer children an education more appropriate for the present age. [10:vii]

III

The information in the previous section deals mostly with younger children and why they should be included in a middle school organization (5th and/or 6th graders). The evidence that many children enter the transescence period at age 10 or 11 seems to be stronger than the evidence that they leave that period at age 13 or 14, or the end of the 8th grade. The implication, however, seems to be that since these children are mature enough to leave the elementary school earlier, they are also mature enough to leave the middle school earlier.

The reasons given by proponents for the 9th grade to be included in the senior high school, however, are several, and the same reasons are given many times over by different people:

1. The 9th graders are more like the senior high school students than they are like the 7th and 8th graders, in terms of physical development, social, emotional, and intellectual development.
2. The age-old problem exists with courses and credits. Because often Carnegie unit requirements are needed for graduation purposes and for college entrance requirements, the 9th grade curriculum is determined by the high school anyway. When the high school impinges upon the authority of the junior high administration for the curriculum of the 9th grade, it often determines the curriculum for the lower grades also. Having the 9th grade in high school makes the 9th grade record a part of the total high school record; unification of 9-12 also permits better coordination of courses in high school.
3. Taking the 9th grade out of the middle school slows the growing-up process of the younger children.
4. Pulling the 9th grade out of the middle school improves discipline in the middle school and does not necessarily increase problems in the high school, other than what increased numbers would bring about anyway.
5. Legal requirements for school entrance makes more students older in the 9th grade than previously when the entrance age was younger.
6. High school articulation is improved with continuity of grades 9-12 within the senior high school.
7. The 7-9 organization often cannot meet the demands of 9th graders in such things as science instruction depth, foreign language choices, business courses, and other subject matter areas.

One writer, Virgil E. Strickland, "Where Does the Ninth Grade Belong?" in the February 1967 issue of the *NASSP Bulletin* states that little or no research has been attempted on this question of where to place the 9th grade. While there are many factors that could be taken into consideration

when deciding where this grade belongs, the one factor Strickland thinks is most important is the academic success of pupils: "presumably, a school grade should be placed where the academic needs of the largest proportion of pupils assigned to it are served best." [20:74] In an attempt to provide some research on this question, Strickland made an investigation into two Florida schools: School A had the 9th grade in the junior high (316 students) and School B had the 9th grade in the senior high (360 students). The schools chosen were comparable in terms of pupil population, socio-economic circumstances, faculty training and experience, faculty length of service in the school, and certification of GRE and NTE scores. Tests given to both sets of students nine months apart included the School and College Ability Test and Metropolitan Test, Carson McGuire and George White's "Measure of Social Status," and Grover Tulley's Attitude Scale "How I Feel About School."

The research showed that the academic success of the 9th graders was not determined by their placement in the school organization. Students in School B showed greater growth in language and arithmetic; while students in School A showed greater growth in social studies information and skills and in science. [20:76] It also appears that the 9th graders in the junior high valued the "importance of school and school work just as highly as 9th graders in a senior high school." [20:76]

Most educators, however, who are proponents of the 9th grade being in the senior high school, do not consider the question of academic success, but rather give the several reasons mentioned previously. There are those educators, of course, who do not believe the 9th graders should be in the senior high schools. The committee on Junior High School Education of the National Association for Secondary School Principals is one group of such educators. While the Committee does acknowledge that there is *some* evidence to indicate, on the basis of puberty, that 6th graders perhaps should be in the middle level school, it makes the statement "we believe also that most ninth graders are not ready for the activities of the usual senior high school." [8:60]

The Committee, in its statement of "Recommended Grades or Years in Junior High or Middle Schools," suggests that school systems should base their decisions for grade level organization on the evidence on maturation patterns, and it is the belief of the Committee that "most studies indicate that the grades in which the greatest proportion of pupils are pubescent are seven, eight, and nine." [8:69]

Exception must be taken with the Committee's statement on two accounts. It is questionable that recent studies indicate grades 7, 8, and 9 have the greatest proportion of pubescents. It is also questionable that maturation patterns alone should determine the grades to be included in the middle school. Particularly where the 9th grade is concerned, educators consider other factors of significant importance.

IV

A number of surveys of existing middle schools across the country have been made in recent years which give a general picture of why the schools came into being, how they are organized, the type of program used, and some advantages discovered in this new grade-level organization. The results from some of these surveys are shown in the following pages.

William M. Alexander, one of the foremost experts on the middle school, now Director of the Institute for Curriculum Improvement in the College of Education at the University of Florida, made a survey which identified 1,101 middle schools in the United States. In 1967-68 he collected data from a 10% random sample of the schools previously identified.

The significant data from his study shows the following results: [1:114-116]

1. Of the 110 schools, 60% had a grade level organization of 6-8; 27.3% had 5-8 organization; 12.7% had organizations such as 4-8, 5-7, 6-9, and 4-7. Thus, at present, there is an approximate two to one ratio of grade 6-8 to 5-8.
2. Enrollment of the middle schools ranged from below 100 to more than 1,300; 75% had enrollments of from 300 to 1,000.
3. About 80% of the schools were housed in separate plants, and seven had "little school" housing arrangements.
4. 3.8% of the schools were established before 1955; 10.4% before 1960; and 42.9% established during 1966 and 1967. Thus, the expansion of the middle school organization is a phenomenon of the current period.
5. Principals of the middle schools were asked to indicate all applicable reasons for the grade organization. The reason most frequently reported was not related to program. The chart below shows the reasons.

NUMBER AND PER CENT OF MIDDLE SCHOOLS INDICATING CERTAIN REASONS FOR ESTABLISHMENT AS REPORTED BY 110 MIDDLE SCHOOLS

	Reporting Schools	
Reason	*No.*	*%*
To eliminate crowded conditions in other schools	64	58.2
To provide a program specifically designed for students in this age group	49	44.6
To better bridge the elementary and the high school	44	40.0
To provide more specialization in grades 5 and/or 6	33	30.0
To move grade 9 into the high school	27	24.5
To remedy the weakness of the junior high school	27	24.5
To try out various innovations	26	23.6
To utilize a new school building	23	20.9
To use plans that have been successful in other school systems	14	12.7
To aid desegregation	7	6.4
Other	13	11.8

6. Two frequently cited weaknesses of the junior high school (in the opinion of Alexander) are its interschool athletic program and the duplication of the senior high school pattern of departmentalization. Under "to remedy weaknesses of the junior high school," Alexander checked to see if the principals listed these reasons. He found that half the schools still used an interschool athletic program, indicating they felt it was not a weakness, or for other reasons, it was not eliminated. He found also the same was true for departmentalization.
7. Aims generally stated for the schools, both in the literature and by the respondents, were not generally reflected in the curriculum plan and instructional organization of the schools surveyed. The program was generally comparable to that of the predecessor organization.
8. Despite the marked tendency of the newer grade organizations to resemble the program and organization of the predecessor organizations, there were some observable developments which could be forerunners of a more general movement toward middle schools that do differ from the prevailing junior high school pattern. These include:

    a. 30% are utilizing variable and modular schedules differing from the conventional uniform daily schedule of equal periods.
    b. Independent study arrangements are being provided in 20% of the schools.
    c. Team teaching patterns are infrequently used but seem more frequent in schools recently established in new facilities, and numerous respondents indicated future plans for the development of such patterns.
    d. Reporting and marking systems are not uniform, and many schools are attempting plans which reflect interest in individual progress.
    e. Many larger schools do offer a wide range of exploratory curriculum opportunities, and several respondents expressed interest in developing expanded programs.
    f. Answers to the open-ended items in the survey and interviews in the schools visited revealed considerable dissatisfaction with certain "inherited" arrangements, and various plans for future modifications designed to meet the needs of children of middle school age.

Another significant survey was conducted by the Research Division of NEA and the American Association of Secondary Administrators which collected data on twenty middle schools in the country (mostly 6-8 organization). The schools were asked about grade level departmentalization. The majority of the systems used a combination of departmentalization patterns

for different grades. The percentage of school systems which used the self-contained classroom, partially departmentalized grades and totally departmentalized systems are shown in the chart below according to grade level in the school. [4:3]

PERCENT OF SYSTEMS WITH MIDDLE SCHOOL CLASSES

Grade	*Self-Contained Classrooms*	*Partially Departmentalized*	*Totally Departmentalized*
5	60%	40%	——
6	39%	48%	13%
7	10%	38%	52%
8	5%	20%	75%

The same survey contained data concerning offerings of the middle schools that would *not* have been available under the conventional plan. The following charts show facilities available, services or activities provided, and additional special teachers used in the middle schools which reportedly would not have been provided or used under the conventional system.

No. of Systems	*Facility*
10	Large group teaching facilities
12	Art room
12	Industrial arts room
10	Gym
7	Library
3	Individual study facilities
14	Science lab
13	Music room
9	Auditorium
7	Language lab
12	Home economics room

No. of Systems	*Specialized Teachers*
13	Science
11	Music
8	Health
11	Home economics
12	Art
11	Industrial arts
12	Physical education
11	Foreign language

No. of Systems	*Service or Activity*
8	Remedial reading
13	Guidance
4	Speech correction
7	Speech education classes
6	Psychological services
2	Visiting teachers
11	Clubs
10	Musical organizations
11	Team sports

The study by Cuff in 1965-66 of 499 middle schools revealed the following information about programs of these schools: [9:84]

1. As far as departmentalization is concerned, general patterns were evident although deviation did exist.
   Eight grade—departmentalization plan similar to high schools;
   Seventh grade—departmentalization modified by blocking one or two pairs of subjects;
   Sixth grade—most often self-contained classroom;
   Fifth grade—self-contained classroom.
2. Conformity existed in some course offerings where English, social studies, mathematics, science, physical education, art, and music were standard in all grades.
3. Conversational foreign language (mostly French and Spanish), industrial arts, and home economics start *by* the eighth grade in *all* schools studied.
4. Some middle schools had all, and all had some of the following subjects: health, reading, typing, arts and crafts, homemaking for boys, library, and homeroom guidance.
5. Extra-class activities were usually limited to band, orchestra, chorus, student council, and intramural sports.

These various studies indicate that while diversity is an obvious factor in the administration and programming of the various middle schools, general patterns and trends exist. They also indicate that some of the schools are operated in the traditional junior high school pattern, while others are trying new and different patterns.

V

Much written space is given by middle school proponents to what a middle school is and/or should be. General agreement exists in the belief that the grade reorganization is the initial step to be taken for it is essential if an improvement is to be made over the present unsatisfactory junior high school organization. Grade level reorganization is also the easiest step to take.

The real question, however, is: what happens *after* the reorganization? It is apparent that unless fundamental and radical changes in program, curriculum and instruction are made, the middle school will not fulfill the needs of students in the transescence period. The middle school philosophy and program cannot continue as the present "junior" high school program which, generally, mimics the senior high school program. Students in this transitional stage must be treated differently and uniquely, and the philosophy, program, and instruction must reflect this treatment.

Ideally the middle school should continue the elementary school concern

for the whole child along with the secondary school stress on scholarship and intellectual development. Educators writing about the middle school generally agree on these same concerns for the student in this school. The ways in which they describe the middle school and their suggestions about program implementation may differ, but common ideas are evident in their statements.

Neil Atkins claims there are three distinguishing characteristics of the middle school: [5:118-119]

1. Attitudinal Stance.
   The uniqueness of the middle school is in its approach; it is a matter of "attitude, of expectation, of sensitivity, and of perception. . . . the middle school is characterized by the capacity to accommodate children whose chronological age is dominated by problems of coping with change—their changing bodies, changing interests, changing personal relationships."
2. Operational Flexibility and Innovative Practice.
   The middle school is characterized organizationally by flexibility, environmentally by sensitivity to changing needs, and instructionally by individualization.
3. Supportive Instructional Strategies.
   Instructionally, there is a shift in emphasis from *mastery* of to *utilization* of knowledge. Special features of the middle school program include diagnostic teaching, individualized instruction, self-directed learning, and learner-centered evaluation.

Robert J. Havighurst believes that one primary goal of the middle school should be to help the student cope with the "knowledge avalanche;" to do so, the child's mind can no longer be treated as a *storehouse* of *knowledge* but rather as an *instrument for learning*. [14:120] The other primary goal of the middle school is to better help young people "achieve the three major developmental tasks of preadolescence that are the special concern of school: 1) organizing one's knowledge of social and physical reality; 2) learning to work well in the peer group; and 3) becoming an independent person." [14:121]

In order to implement an appropriate educational experience for the transescent youngster, Alexander and Williams have drawn up a set of guidelines for the middle school which include the following:

1. Serve the needs of older children, pre-adolescents, and early adolescents. (Should be freed from rigid departmentalization, pressures of interschool competitions, and the tensions of older adolescent social functions.)
2. Make a reality of the long-held ideal of individualized instruction.
3. Give high priority to the intellectual components of the curriculum.
4. Place a primary emphasis on the skills of continued learning (inquiry and discovery, independent study).

5. Provide a rich program of exploratory experiences.
6. Provide a program of health and physical education specifically designed for these students.
7. Place an emphasis on values.
8. Facilitate the most effective use of the special competencies and interests of the teaching staff.

It is readily apparent that most of these statements about program in the middle school are not new—they have been made in connection with the junior high school before. The problem, of course, is that they seldom have been actualized. If the needs for program were to be met in the traditional junior high, there would be less cause for dissatisfaction with the existing organization, but the dissatisfaction, in substantial part, would still exist because of the basic grade level reorganization needed.

Thus, there are two fundamental elements involved in the middle school concept—grade (age) and program. It seems essential that the grade level change (to 6-8) be made initially with implementation of program changes following as rapidly as possible.

The problem that exists, both in theory and practice, however, is that many schools make the grade-level organizational change but do not follow it with changes in educational philosophy, program, curriculum and instruction. The realization that this often happens is emphasized in the study by William Alexander referred to earlier. In his words:

> The data do not show that the program and instructional organization of the reorganized schools differ, for the most part, from what they were in the predecessor school—an improved school for learners between childhood and adolescence is yet to be realized. [1:114]

The danger always exists that Alexander's statement will continue to be true in the future—that newly established middle schools will exist in name and organization only. This danger can be guarded against, however, by school districts considering such changes if they plan, from the beginning, on the total change that must be made. Alexander refers to this necessary planning in his final statement concerning his study:

> [It is necessary] for school districts contemplating changes in their instructional ladder to plan more carefully the programs and organizations of new schools to relate to educational purposes and pupil populations. If more deliberate and comprehensive planning is not utilized now, the middle school movement soon may be like the junior high—simply another instance of moving down an organization developed for an older population. With proper planning, and especially the deliberate programs for training rather than transplanting personnel, the middle school movement can be made an effective step in educational improvement. . . . [1:116-117]

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